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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/510,345

10/06/2004

Kazumasa Inata

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EXAMINER

SELLERS, ROBERT E

ART UNIT

PAPER NUMBER

1712

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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31 DAYS

03/22/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/510,345

Applicant(s)

INATA, KAZUMASA

Examiner

Robert Sellers

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-15 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6 October 2004</u> . | 6) <input type="checkbox"/> Other: ____. |

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claims 1, 2 and 5-10, drawn to a composition comprising a glycidyloxy groups-containing (hydrogenated) polybutadiene, a mono-oxetane compound of Formula (1) and a cationic photopolymerization initiator.

Group II, claims 3 and 4, drawn to the composition of Group I further containing a polymer having a glass transition temperature of -30°C or lower.

Group III, claims 12-15, drawn to a actinic radiation-cured material having certain storage modulus and $\tan \delta$ values.

The inventions listed as Groups I-III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical feature. The special technical feature is the blend of glycidyloxy groups-containing (hydrogenated) polybutadiene with a mon-oxetane compound of Formula (1) and/or a mono-epoxy compound and a cationic photopolymerization initiator.

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2. Yamamura et al. Patent No. 5,981,616 (an equivalent of European Patent No. 848,294, both cited in the Information Disclosure Statement filed October 6, 2004) in column 2, lines 57-61 reports a photo-curable resin composition comprising an oxetane compound such as the 2-ethylhexyl(3-ethyl-3-oxetanylmethyl)ether (col. 6, line 28) utilized in Table 1 on page 27 of the instant specification, an epoxy compound including an epoxidated butadiene polymer (col. 9, lines 14-34) and a cationic photo-initiator.

3. Accordingly, the special technical feature is does not make a contribution over the prior art, thereby validating a holding of lack of unity.

4. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

(A) The glycidyloxy groups-containing (hydrogenated) polybutadiene such as the DENAREX R-45EPT glycidyloxy groups-containing polybutadiene employed in Table 1 on page 27 of the specification as described on page 24.

(B) The mono-oxetane compounds of Formula (1) and/or mono-epoxy compounds. Example 1 of Table 1 shows EHOX which is 3-ethyl-3-(2-ethylhexyloxymethyl)oxetane OXT-212 according to page 24.

(C) The cationic photopolymerization initiators such as the UV-9380C containing bis(dodecylphenyl)iodonium hexafluoroantimonate used in Example 1.

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(D) Contingent upon the election of Group II, items (A), (B) and (C) hereinabove and the presence or absence of the polymer having a glass transition temperature of -30°C or lower defined in claims 3 and 4, wherein if its presence is elected, a particular species thereof is identified such as the LIR-410 methanol ring-opened maleic anhydride grafted polyisoprene exhibited in Examples 2, 3 and 4-7 of Table 1. Example 1 does not contain such a polymer.

(E) The compositions with or without the antioxidant of claim 5, inorganic ion-exchanger of claim 6 or both of claim 7, wherein the species are identified if elected. The ion-exchangers are not exemplified but described in the first paragraph on page 18. Examples 6-11 of Table 1 utilize Irganox 1010 which is a hinder phenol designated as pentaerythritol tetrakis[3-(3,5-di-*t*-butyl-4-hydroxyphenyl)propionate as set forth on page 25. Example 1 does not include an antioxidant and/or ion-exchanger.

Applicant is required, in reply to this action, to elect a single species ***within each of items (A), (B) and (C); and (D) or (E) if appropriate*** to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Claims 1-15 are generic.

5. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical feature for the reasons espoused with respect to the holding of lack of unity between the inventions hereinabove.

A telephone call was made to Mark Boland on January 15, 2007 to request an oral election to the above restriction and election of species requirement, but did not result in elections being made.

The reply to this requirement to be complete must include (i) an election of an invention and species to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention and species.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

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Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if one of the inventions is found to be unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention or species.

6. The abstract of the disclosure is objected to because it is not confined to a single paragraph. Correction is required (MPEP § 608.01(b)).

7. The attached translations for Japanese Patent Nos. 11-140279 and 11-246647 cited in the Information Disclosure Statement reveal formulations prepared from mon-oxetanes, cationic photoinitiators and epoxy compounds not including the claimed glycidyoxy groups-containing (hydrogenated) polybutadiene.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Sellers whose telephone number is (571) 272-1093. The examiner can normally be reached on Monday to Friday from 9:30 to 6:00. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

rs
3/20/2007



ROBERT E.L. SELLERS
PRIMARY EXAMINER